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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,390	02/20/2004	Otman Adam Basir	60,449-095	6422

26096 7590 12/18/2007
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EXAMINER	
TO, TUAN C	
ART UNIT	**PAPER NUMBER**
3663	
MAIL DATE	**DELIVERY MODE**
12/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/783,390	BASIR ET AL.	
	Examiner	Art Unit	
	Tuan C. To	3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 October 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14 and 25-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14 and 25-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 January 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-9, 14, 25-29, 32-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kung et al. (US 5850470A) and in view of Christl et al. (US 20040176891A1).

Regarding claim 1, Kung et al. teaches a system/method for classifying an occupant including the steps of: capturing an image of an occupant area (figure 1; column 4, lines 1-10, video camera is used to capture image of human face); dividing the image into a plurality of subimages of different predetermined spatial (figure 4, column 3, lines 9-22, the face image is divided to facial features and hairline features, the image scene is preprocessed into subimages); generating a spatial feature matrix of the image based upon the plurality of subimages (figure 5 represents a spatial feature matrix of the image based upon plurality of subimages); analyzing the spatial feature matrix; and classifying an occupant in the occupant area based upon said step (figure 5).

Kung et al. merely fails to disclose "classifying an occupant in the occupant area based upon step (d), which is analyzing the spatial feature matrix, into a classification, wherein the classification include: adult and child.

Christl et al. discloses a system and method for monitoring the interior of a vehicle comprising: the act of classifying an occupant in the occupant area based upon step (d), which is analyzing the spatial feature matrix, into a classification, wherein the classification include: adult and child (see abstract; paragraph 0004-0009).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system as taught by Kung et al. to include the teaching of Christl et al. in order to properly activate the restraint system onboard a motor vehicle and therefore the vehicle occupant are highly protected in a collision.

As to claim 2, Kung et al. further teaches "processing the image to account for lighting and motion before "analyzing the spatial feature matrix" (abstract).

As to claim 3, Kung et al. further teaches "smoothing the classification of the occupant over time" (column 4, lines 14-22).

As to claim 4, Christl et al. discloses determining whether to activate an active restraint based upon the classification of step (e) (see paragraph 0066).

As to claims 5-8, and 26-28, Kung et al. clearly teaches applying expert classifier algorithm to the spatial feature matrix, analyzing the spatial feature matrix (figure 5). Kung et al. also teaches teaches that a plularity of images of known occupant classifications of the occupant area (figure 5) are generated.

As to claims 9, and 29, Kung teaches "analyzing the spatial feature matrix based on the location from which the image is captured relative to the occupant area" (see abstract, the position (location) of the object's image such as the eyes).

As to claim 14, Kung et al. shows that the plurality of subimages repsented in figure 4 overlap one another.

As to claims 32, 33, and 35-38, Christl et al. discloses determining the classification of the occupant from among the classification including: adult, child, and infant seat (paragraph 0066).

Regarding claim 25, Kung et al. teaches a system/method for classifying an occupant including the steps of: capturing an image of an occupant area (figure 1; column 4, lines 1-10, video camera is used to capture image of human face); dividing the image into a plurality of subimages of different predetermined spatial (figure 4,

column 3, lines 9-22, the face image is divided to facial features and hairline features, the image scene is preprocessed into subimages); generating a spatial feature matrix of the image based upon the plurality of subimages (figure 5 represents a spatial feature matrix of the image based upon plurality of subimages); analyzing the spatial feature matrix; and classifying an occupant in the occupant area based upon said step (figure 5).

Kung et al. merely fails to disclose "classifying an occupant in the occupant area based upon step (d), which is analyzing the spatial feature matrix, into one of a plurality of classifications, wherein the classification include: infant seat".

Christl et al. discloses a system and method for monitoring the interior of a vehicle comprising: the act of classifying an occupant in the occupant area based upon step (d), which is analyzing the spatial feature matrix, into a classification, wherein the classification include: infant seat (see paragraph 0066).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system as taught by Kung et al. to include the teaching of Christl et al. in order to effectively deactivate the airbag system if an infant is present on the child seat.

Regarding claim 34, , Kung et al. teaches a system/method for classifying an occupant including the steps of: capturing an image of an occupant area (figure 1; column 4, lines 1-10, video camera is used to capture image of human face); dividing the image into a plurality of subimages of different predetermined spatial (figure 4, column 3, lines 9-22, the face image is divided to facial features and hairline features,

the image scene is preprocessed into subimages); generating a spatial feature matrix of the image based upon the plurality of subimages (figure 5 represents a spatial feature matrix of the image based upon plurality of subimages); analyzing the spatial feature matrix.

Kung et al. merely fails to disclose determining whether the occupant area is occupied by a person based upon analyzing the spatial feature matrix.

Christl et al. discloses a system and method for monitoring the interior of a vehicle comprising: determining whether the occupant area is occupied by a person based upon analyzing the spatial feature matrix (abstract; paragraph 0046, and paragraph 0048).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system as taught by Kung et al. to include the teaching of Christl et al. in order to disable the airbag system if there is no occupant present on a specified vehicle seat, and therefore to save money from cost of airbag repair after a collision occurs.

Claims 10-13, 30, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kung et al. (US 5850470A), Christl et al. (US 20040176891A1), and further in view of Baloch et al. (US 6459974B1).

As to claims 10 and 30, neither Kung et al. nor Christl et al. disclose "altering the orientation or the location from which the image is captured and adjusting the system parameters".

Baloch et al. discloses that based on the occupant's location from which the occupant's image is captured, the system parameters are adjusted (column 6, lines 38-57; column 12, lines 43-61).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system/method of Kung et al., Christl et al. to include the teaching as taught in Baloch et al in order to accurately activate or deactivate the restraint system based upon the posture of the vehicle occupant.

Regarding claims 11-13, and 31, Kung et al. and Christl et al. fail to teach "analyzing the spatial feature matrix based upon system parameters including an orientation or a location from which the image is captured relative to the occupant area".

Baloch et al. provided as teaching such that feature (column 6, lines 38-45).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system/method of Kung et al. and Christl et al. to include the teaching as taught in Baloch et al for the advantage of accurately activate or deactivate the restraint system based upon the position of the occupant on the seat (e.g., rear facing infant seat or front facing child seat).

Response to Applicant's Arguments

In response to the applicant's amendment, a new ground of rejection has been set forth. The previous cited reference to Kung et al. does disclose classifying an occupant in an area based on analyzing spatial matrix. The new cited reference to Christl discloses a system/method for monitoring the interior of a vehicle in which the vehicle occupant is classified based on analyzing the spatial matrix, and that the

classification includes adult, child, and infant seat. In addition, Christl et al. further discloses the act of determining whether the occupant area is occupied by a person based upon analyzing the spatial matrix.

Conclusions

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

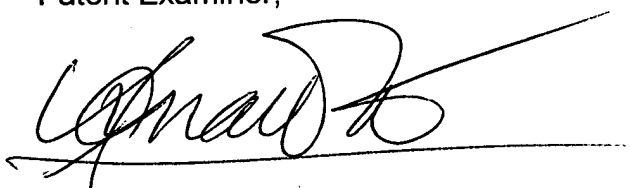
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan C To whose telephone number is (571) 272-6985. The examiner can normally be reached on from 8:00AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner,



Tuan C To

December 14, 2007